



Principal Investigator Grant

Project

«Novel, specific protein structural biomarkers for Alzheimer's Disease, Parkinson's Disease, and Dementia with Lewy Bodies»

Granted amount	CHF 300'000
Starting date	1.6.2022
Duration	36 months



Main applicant

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Biomarkers for early diagnostic in neurodegenerative diseases

As average human lifespan increases, neurodegenerative disease is becoming more common. Unfortunately, these diseases are difficult to diagnose accurately by clinical observation. That is why researchers are developing objective measurements of molecules in the body – called biomarkers – for accurate and early diagnosis.

The Picotti lab has developed a new way to probe the structures (i.e. shapes) of thousands of proteins simultaneously and has shown that about 100 proteins change structure between cerebrospinal fluid of PD patients and of healthy people. This provides an entirely novel way of studying and diagnosing PD. In this project, we will apply this idea to two other common diseases, Alzheimer's disease (AD) and Dementia with Lewy Bodies (DLB).

The goal is to discover specific and accurate new biomarkers for AD, PD and DLB. This will improve disease diagnosis and help enroll the appropriate patients in clinical trials testing for better treatments and even cures.